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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: James Digby Collier et al.

Title: INTEGRATED CIRCUIT

Docket No.: 491.039US1

Filed: April 3, 2000

Examiner: Tuan Thieu Lam

Serial No.: 09/541,857

Due Date: December 6, 2001

Group Art Unit: 2816

Commissioner for Patents  
Washington, D.C. 20231

We are transmitting herewith the following attached items (as indicated with an "X"):

- ☒ A return postcard.
- ☒ An Amendment and Response Under 37 CFR 1.111, including Clean Versions of Amended Paragraphs of Specification (16 pgs).
- ☒ Petition for Extension of Time (1 pg.), with authorization to charge extension fee to Deposit Account 19-0743.

Please consider this a **PETITION FOR EXTENSION OF TIME** for sufficient number of months to enter these papers and please charge any additional required fees or credit overpayment to Deposit Account No. 19-0743.

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.  
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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231, on this 6th day of December, 2001.

Ann McCrackin  
Name

Ann M. McCrackin  
Signature

Customer Number 21186

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.  
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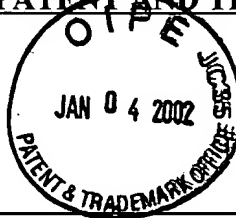
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S/N 09/541,857

PATENT

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AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

Commissioner for Patents  
Washington, D.C. 20231

Applicant has reviewed the Office Action mailed on June 6, 2001. Please amend the above-identified patent application as follows.

This response is accompanied by a Petition, as well as the appropriate fee, to obtain a three-month extension of the period for responding to the Office action, thereby moving the deadline for response from September 6, 2001 to December 6, 2001.

IN THE SPECIFICATION

Please make the paragraph substitutions indicated in the appendix entitled Clean Version of Amended Specification Paragraphs. The specific changes incorporated in the substitute paragraphs are shown in the following marked-up versions of the original paragraphs.

Please amend the paragraph beginning on page 7, line 26, and ending on page 7, line 32, line 11, as follows:

Connected in this manner, the circuit acts as a ring oscillator and a chain of logic high and logic lows propagate round. The rate at which the logic high and logic lows propagate depends upon the propagation delay through each latch 10a and 10b. If the delay through latch 10a is  $T_1$  and the delay through latch 10b is  $T_2$  then the oscillation frequency =  $[1/(T_1 + T_2)] \underline{1/[2(T_1+T_2)]}$ .

Please amend the paragraph beginning on page 7, line 33, and ending on page 8, line 11, as follows:

If the delays  $T_1$  and  $T_2$  are made to vary cyclically, with frequency  $f_{in}$ , about a value of  $[1/f_{in}]$  (i.e.  $1/f_{in} < T_1$  and  $T_2$ ,  $1/f_{in}$ )  $\underline{1/[2f_{in}] < T_1 \text{ and } T_2 < 1/[2f_{in}]}$  such that  $T_1$  increases when  $T_2$  decreases and vice versa, then the logic highs and lows can only propagate round the circuit with a delay of  $2/f_{in}$ . Any signal that tries to propagate round the circuit any faster or slower than